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centre, in which I could see the reflection of my head, which moved as I moved. I remember having seen a centre before in a rainbow, which I witnessed near Cader Idris, in Wales, in July, 1847, in a splendid bow of two arches, but which I never mentioned before, having never heard of the like.

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## *Note on the Change in the Colour of the Equatorial Belt of Jupiter.* By John Browning, Esq.

Since the appearance of my last paper in the *Monthly Notices*, Professor Herschel has kindly written me a letter on the subject of the change in colour of *Jupiter*. Some brief extracts from this letter will, I think, be of interest. Professor Herschel says,—

"I see in a recent number of the *Monthly Notices* that you are raising very interesting questions about the appearance of *Jupiter's* belts, which may lead to very important results if it is found that the coloured and disturbed appearances of the belts are subject to periodical maxima and minima at about the same time as those of the spots on the Sun."

In a number of the *Student*, published just a year since, I wrote an article on the physical condition of *Jupiter*, from which I now give an extract:—

"Another suggestion may be made here,—Sunspots are known to be periodical, their maxima and minima being about eleven years apart. As Mr. Huggins some years ago (date unknown) observed the equatorial belt of *Jupiter* to be of the same ochreish yellow as it is now, there is good reason to suspect periodicity in this change. A period of maxima of sunspots is now approaching. Have these two phenomena any relationship to each other?"

The information I have so much desired to obtain, as to when a change in colour had previously been observed, and the exact appearance of the planet at the time, Professor Herschel has kindly furnished me with in his letter. I, therefore, again give Professor Herschel's words:—

"On a fine night in January, 1860, I turned Mr. Prichard's 6¾-inch Equatorial, by Cooke, for about half an hour on *Jupiter*. The planet was so well defined, and the details of the markings on the equatorial belt were so peculiar, that I made a sketch of them, noting at the same time the remarkable brown colour of the equatorial belt. One of the edges of the belt (I think the upper side in the instrument) was beaded or divided into egg-shaped masses, which must have been of brighter or lighter colour than the background of the belt, to have given them so much prominence."

On January 7, at 9 P.M., three days before I received Professor Herschel's letter, I made a careful coloured drawing of the

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planet, and the description given by Professor Herschel of the appearance of the coloured belt in January, 1870, would apply exactly to the appearance of the belt in this drawing. I have brought the drawing for inspection, but it is so similar to the one which appears printed in colours in the last Number of the *Monthly Notices* that it will not be necessary to print this as well.

My principal object in communicating this Note is to request that any observers who have kept a record of the appearance of *Jupiter*, at a date previous to the year 1860, will look through their note-books, and if they can find a note of the equatorial belt appearing to be coloured previous to that date will communicate the same either to myself or to the Society.

*Clapham, January 9th*, 1871.

## *Ephemeris of the Satellites of Uranus.* By A. Marth, Esq.

For $8^h$ Greenwich Mean Time.

| | | Ariel. | | Umbriel. | | Titania. | | Oberon. | |
|---|---|---|---|---|---|---|---|---|---|
| | | Pos. | Dist. | Pos. | Dist. | Pos. | Dist. | Pos. | Dist. |
| | | ° | ″ | ° | ″ | ° | ″ | ° | ″ |
| Jan. | 11 | 236 | 12 | 113 | 17 | 118 | 28 | 49 | 39 |
| | 12 | 104 | 12 | 15 | 21 | 65 | 27 | 23 | 44 |
| | 13 | 324 | 14 | 300 | 17 | 22 | 33 | 1 | 47 |
| | 14 | 175 | 15 | 206 | 20 | 350 | 35 | 341 | 45 |
| | 15 | 24 | 14 | 127 | 18 | 314 | 30 | 317 | 41 |
| | 16 | 243 | 12 | 26 | 20 | 264 | 27 | 287 | 37 |
| | 17 | 111 | 12 | 314 | 18 | 215 | 31 | 253 | 36 |
| | 18 | 330 | 14 | 211 | 19 | 181 | 35 | 221 | 40 |
| | 19 | 179 | 15 | 140 | 19 | 148 | 32 | 197 | 45 |
| | 20 | 30 | 14 | 37 | 19 | 103 | 27 | 176 | 47 |
| | 21 | 251 | 12 | 326 | 20 | 51 | 29 | 155 | 45 |
| | 22 | 118 | 12 | 224 | 18 | 12 | 34 | 130 | 40 |
| | 23 | 325 | 15 | 151 | 20 | 340 | 34 | 98 | 36 |
| | 24 | 184 | 15 | 51 | 18 | 300 | 29 | 63 | 37 |
| | 25 | 35 | 14 | 336 | 20 | 248 | 27 | 34 | 42 |
| | 26 | 258 | 12 | 238 | 17 | 204 | 33 | 11 | 46 |
| | 27 | 124 | 13 | 161 | 21 | 171 | 35 | 350 | 47 |
| | 28 | 339 | 15 | 66 | 17 | 136 | 31 | 328 | 44 |
| | 29 | 188 | 15 | 346 | 21 | 87 | 27 | 302 | 38 |
| | 30 | 41 | 13 | 254 | 16 | 38 | 30 | 268 | 36 |
| | 31 | 266 | 12 | 171 | 21 | 2 | 35 | 235 | 38 |

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